REMARKS

Applicants have carefully considered the Examiner's comments set forth in the Office Action of October 17, 2007.

Claims 18 and 20-30 are pending, and claims 18, 23, and 27 are amended. Reconsideration of the Application is respectfully requested.

Interview Summary

Applicants gratefully acknowledge the opportunity given by the Examiner to meet on February 7, 2008. In the interview, the Examiner, his Supervisor, and Applicants' Representative discussed the present application and cited prior art, more particularly, Eldridge (U.S. Patent No. 5,228,854) and Schroeder (U.S. Patent 5,631,830). As a result of the interview, it is the Applicants' understanding that the independent claims amended to include the particular sequence of events overcome the combination of Eldridge and Schroeder.

Claims Distinguish Over Cited Prior Art

Claims 18, 20, 21, 23-25 and 27-30 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Eldridge (U.S. Patent No. 5,228,854) in view of Schroeder (U.S. Patent No. 5,631, 830). Applicants respectfully traverse this rejection.

Claim 18 calls for among other elements:

(a) generating in the missile simulator a target seeker command position for a simulated target seeker to command the simulated target seeker to adopt a predetermined position;

(b) receiving the target seeker command position from the missile simulator at the weapons system;

(c) simulating behavior of the missile in a computer model in the missile simulator to generate an actual value signal adapted to the weapons system;

(d) generating in the weapons system a continuous trouble signal as a difference between the target seeker command position and the actual value signal;

(e) measuring the continuous trouble signal by an interface module;

(f) from the measured continuous trouble signal, determining sampled values for a vector indicating an error in the amplitude (A) and an error in the phase angle (φ);

(g) sending the sampled values to the computer model in the missile simulator;

(h) using the trouble signal as a control signal for the simulated target seeker;

(i) correlating measured results with known desired results to determine values of the amplitude (A) and phase angle (φ) of the actual value signal; and

(j) repeating steps (c)-(i) to control the computer model towards a target by the target seeker during the simulation of the computer model and the target seeeker.

Eldridge describes a training system between two aircrafts. A launch aircraft generates ordnance information about the launch and transmits this information to the target aircraft. Using a *stored* missile model, the target aircraft calculates the missile trajectory compatible with the original launch information and the target aircraft position. (Col. 5, lines 57-60.) The trajectory of the missile is determined through the time when it would either hit or miss the target aircraft. (Col. 5, lines 65-67.)

Schoeder describes a feedback system.

A. Eldridge does not describe a simulated target seeker

The Office Action asserts on page 3 that in col. 5, lines 40-44, Eldridge discloses generating in the missile simulator a target seeker command position for a simulated target seeker, whereby the simulated target seeker is commanded to adopt a predetermined position. Applicants reviewed col. 5, lines 40-44 of Eldridge and did not find any mentioning of a simulated target seeker. If the Examiner maintains this ground for rejection, the Applicants respectfully request the Examiner point out where exactly Eldridge discloses generating a target seeker command position by the missile simulator, wherein the missile simulator and a simulated target seeker are positioned on the same aircraft.

B. Eldridge does not describe receiving the target seeker command position from the missile simulator at the weapons system which is disposed at the same aircraft as the missile simulator

The Office Action fails to point out where Eldridge discloses "receiving the target seeker command position from the missile simulator at the weapons system." Eldridge generates a

target command position which is fed to another aircraft. Eldridge does not teach or suggest that the target command position, generated by the missile simulator, is received by the weapons system, wherein the missile simulator and the weapons system are positioned on the same aircraft.

C. Eldridge does not describe simulating behavior of the missile in a computer model in the missile simulator which computer model is positioned on the same aircraft as the missile simulator

The missile simulator of Eldridge is positioned in the attacking aircraft. The missile model of Eldridge is disposed in the second aircraft. Eldridge does not teach or suggest that the missile model and the missile simulator are on the same aircraft as the weapons system.

D. Eldridge does not describe simulating behavior of the missile in a computer model in a launching aircraft by repeating steps as disclosed in claim 18 to control the computer model towards a target by the target seeker

Nowhere does Eldridge teach or suggest using a feedback loop control to simulate the missile model and control it toward the target by repeating specific steps. Moreover, nowhere does Eldridge discloses or suggest controlling the simulated missile model with the simulated target seeker by providing simulated feedback information about the moving object such as simulated light, heat, or other radiation.

E. Schroeder does not cure any deficiency of Eldridge

As Schroeder is directed to a feeback system, Schroeder fails to overcome the deficiencies of Eldridge. Because neither Eldridge, nor Schroeder, taken singularly or in combination, discloses or suggests, either explicitly or inherently, each element of claim 18, it is respectfully submitted that **claim 18 and dependent claims 20-22** distinguish patentably and unobviously over Eldridge and Schroeder.

Claim 23 calls for among other elements: in the missile simulator: (a) receiving an input signal representing a deviation of a position of a simulated target seeker from a commanded

position of the simulated target seeker, (b) simulating a behavior of the missile in a computer model using the input signal to generate an actual value signal adapted to an aircraft weapons system, and (c) transmitting the actual value signal to the aircraft weapons system; in the aircraft weapons system for controlling missiles: (d) receiving the actual value signal, and (e) generating an updated signal representing a deviation of a position of the simulated target seeker from a commanded position of the simulated target seeker using the received actual value signal; (f) using the generated updated signal to control the simulated target seeker; and (g) repeating steps (a)-(f) to control the computer model toward a target using the updated signal as the input signal.

The arguments above regarding claim 18 are equally applicable here. It is therefore respectfully submitted that **claim 23 and dependent claims 24-26** distinguish patentably and unobviously over Eldridge and Schroeder, taken singularly or in combination.

Claim 27 calls for among other elements: the computer and interface circuitry facilitate to simulate the computer model and the target seeker so that the computer model is controlled toward a target by the simulated target seeker during repetitive iterations. The arguments above regarding claim 18 are equally applicable here. It is therefore respectfully submitted that **claim 27 and dependent claims 28-30** distinguish patentably and unobviously over Eldridge and Schroeder, taken singularly or in combination.

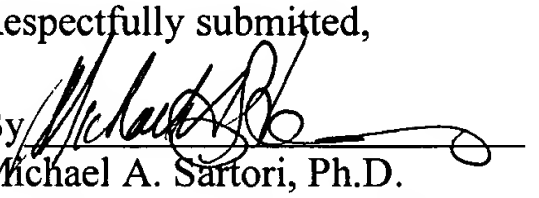
CONCLUSION

For at least the reasons detailed above, it is submitted that all claims remaining in the application **(Claims 18 and 20-30)** are in condition for allowance. The foregoing comments do not require unnecessary additional search or examination.

No additional fee is believed to be due for this Amendment. However, the undersigned attorney of record hereby authorizes charging of any necessary fees, other than the issue fee, to the Deposit Account No. 22-0261.

Dated: February 19, 2008

Respectfully submitted,

By 

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